

# Notice of Allowability

Application No.

10/815,261

Examiner

Andrew Wendell

Applicant(s)

CHEUNG ET AL.

Art Unit

2618

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/30/2007.
2. ☒ The allowed claim(s) is/are 17-23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: Regarding claim 17, the prior art of art Dockemeyer, Jr. et al. (US Pat Appl# 2004/0214540) teaches moving the merged receiver filters to selected channels to identify whether interference is narrowband or wideband 104 and 106 (Fig. 4); and increasing the receiver attenuation 40 and 60 (Fig. 2) to protect the receiver from operating in the non-linear region and prevent an ADC 48 and 68 [Fig. 2, also it can be read on in Fig. 1 there has to be some sort of D/A converter for it to go into the Digital Demodulator 20 (Fig. 1) and then the signal later on gets converted back to analog 26 (Fig. 1)] from saturation when a strong interfering signal is present (Fig. 4). Dockemeyer, Jr. et al fail to teach setting a bandwidth for the filters.

Haub et al. (US Pat Appl# 2005/0026564) teaches setting a bandwidth for multiple receiver filters 320 and 323 (Fig. 3) to a portion of a channel bandwidth that is a function of the number of such receiver filters (Section 0030 and 0047).

The prior art of record fails to teach a method of detecting interference, the method comprising setting a bandwidth for multiple receiver filters to a portion of a channel bandwidth that is a function of the number of such receiver filters; merging the receiver filters to significantly cover the bandwidth of a channel; moving the merged

receiver filters to selected channels to identify whether interference is narrowband or wideband; and increasing the receiver attenuation to protect the receiver from operating in the non-linear region and prevent an ADC (analog to digital converter) from saturation when a strong interfering signal is present.

Applicant's arguments filed on 3/30/2007 further states reasons for allowance.

The prior art of record fails to teach the claimed subject matter as claimed and substantially connected in claims 17-22.

Regarding claim 23, the prior art of art Dockemeyer, Jr. et al. (US Pat Appl# 2004/0214540) teaches moving the merged receiver filters to selected channels to identify whether interference is narrowband or wideband 104 and 106 (Fig. 4).

Dockemeyer, Jr. et al fail to teach setting a bandwidth for the filters.

Haub et al. (US Pat Appl# 2005/0026564) teaches means for setting a bandwidth for multiple receiver filters 320 and 323 (Fig. 3) to a portion of a channel bandwidth that is a function of the number of such receiver filters (Section 0030 and 0047).

The prior art of fails to teach a micro-controller comprising means for setting a bandwidth for multiple receiver filters to a portion of a channel bandwidth that is a function of the number of such receiver filters; means for merging the receiver filters to significantly cover the bandwidth of a channel; and means for moving the merged receiver filters to selected channels to identify whether interference is narrowband or wideband.

Applicant's arguments filed on 3/30/2007 further states reasons for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

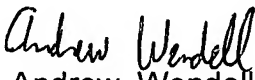
2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kotzin discloses a method and apparatus for receiving electromagnetic radiation within a frequency band. Montojo discloses a method and apparatus for automatic gain control of a multi-carrier signal in a communication receiver. Takaki discloses a receiver and gain control method of the same. Wiese discloses a digital radio frequency interference canceller. Rakib discloses a method and apparatus of using a bank of filters for excision of narrow band interference signal from CDMA signal. Graham discloses a method for acquiring a rapid automatic gain control response in a narrow band receiver. Nanni discloses a method and apparatus for interfering receiver signal overload protection. Zhang discloses a system and method for providing automatic gain control with high dynamic range. Smith discloses a radio receiver. Jayaraman discloses a method and apparatus for mitigating adjacent channel interference in a wireless communication system. Patel discloses an automatic gain control for improved decoding of multi-carrier signal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Andrew Wendell  
Examiner  
Art Unit 2618

7/24/2007

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER